

**CENTRE OF STUDIES FOR BUILDING SURVEYING  
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING  
UNIVERSITI TEKNOLOGI MARA**

**THE IMPLEMENTATION ON GREEN BUILDING ELEMENTS  
TOWARDS THE PERFORMANCE OF EXISTING OFFICE  
BUILDING**

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**Academic Project submitted in partial fulfillment of the requirements  
for the degree of  
Bachelor of Building Surveying (Hons)  
Centre of Studies for Building Surveying  
Faculty of Architecture, Planning & Surveying**


**JUNE 2015**

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**“I hereby declare that this academic project is the result of my own  
research except for the quotation and summary which have been  
acknowledged”**

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## **ABSTRACT**

Green building is primary issue in the new era of construction technology. Generally, the green building is considered to be an environmental component, as the green building materials are manufactured from local eco-sources, i.e. environmentally friendly materials, which are then used to make an eco-construction subject to an eco-design that provides a healthy habitat built on the cultural and architectural heritage in construction while ensuring conservation of natural resources. Normally, consideration of green building element has been implemented at early design stage where the green building systems are implemented for the new construction of office building. But, for the implementation of existing office building is rarely. This research aims to improve the performance of the existing office buildings by implementing the green building elements with several objectives which are first is to study the concept of green building, second is to investigate the implementation of green building elements towards the performance of existing building and the third objective is to determine the most preferred element of green building towards the performance of existing office building.

## **ACKNOWLEDGEMENT**

I am using this opportunity to express my appreciation and gratitude towards Allah S.W.T for all blessing he provided to me, with all required knowledge, health and courage to successful completion of this dissertation.

I would like to thank everyone who supported me throughout the course of this Dissertation BSS658. I am thankful for their aspiring guidance, invaluable constructive criticism and friendly advice during the project work. I am sincerely grateful to them for sharing their truthful and illuminating views on a number of issues related to the project.

I express my warm thanks to Dr. Norsalisma for being a supervisor throughout the semester who always give me a guidelines and support during my study I would also like to thank my parent for being a backbone and supporting me during completion of this dissertation and I also would love to thank all my fellow friend who always be positive to everything that I am trying to accomplish.

Thank You.

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 BACKGROUND RESEARCH**

In the new era of construction and technology, the world issue is the concept of green or green building. There is a way to tackle the issues around the world about the global warming, ozone depletion and others matters which is called green building. This study is to discuss the concept of green buildings system to improve existing office building. There are many definition of green building. For instance, Kibert as cited in Zuo and Zhao (2014) defined green building as: "... healthy facilities designed and constructed in a manner sufficient resources, using ecologically principles". Always keep in mind that green building has been used as a term integrated with sustainable building and high performance building. While Robichaud and Anantamula as cited in Zuo and Zhao (2014) pointed out that there are four pillars of green buildings, i.e. reduce the effect on the environment, increase the health conditions of occupants, give benefits on investment to developers and local community, and the life cycle consideration during the planning and development process .

Since the end of 1980, the efforts to achieve sustainable development of buildings have been widely conducted by international organizations, governments, research centers, etc. This means, researchers have begun to study the advantages and effectiveness of the system for the future development since long time ago and various parties from abroad, especially United States have been involved in reviewing this system